WILEY, REIN & FIELDING

1776 K STREET, N.W.
WASHINGTON, D.C. 20006
(202) 719-7000

THOMAS S. DOMBROWSKY, JR.
(202) 719-7236
TDOMBROW@WRF.COM

FACSIMILE
(202) 719-7049

April 12, 2001

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
12th Street Lobby, TW-A325
Washington, DC 20554

Re: Notification of *Ex Parte* Contact in RM-10051

Dear Ms. Salas:

On Thursday April 12, 2001, Savi Technology and its representatives discussed with members of the Office and Engineering and Technology a variety of issues concerning RM-10051. Savi Technology was represented by Fraser Jennings and accompanied by Gene Robinson of E. A. Robinson Consulting, Inc., Robert Pettit and the undersigned of Wiley, Rein & Fielding. The Office of Engineering and Technology was represented by Julius Knapp, Karen Rackley, Rodney Conway, and Hugh Van Tuyl.

The purpose of this conversation was to discuss the status of Savi's coordination efforts with the Federal Government concerning the use of the 420 to 450 MHz band, comments that were filed in response to Savi's petition for rule making, and a demonstration of the Savi radiofrequency identification product. A handout, attached to this letter, was provided to the attendees.

Should any questions arise concerning this *ex parte* notification, please contact the undersigned at (202) 719-7236.

Sincerely,

/s/

Thomas S. Dombrowsky, Jr.
Engineering Advisor

cc: Julius Knapp
Karen Rackley
Rodney Conway
Hugh Van Tuyl

Attachment

I. Modulation Spectrum for Savi Technology 433.92 MHz RFID System

1.0 System Description

The Savi System consists of Interrogators and Tags. The Tags are normally in a sleep state and do not transmit while in this mode. However, they will periodically turn on their receiver in order to monitor for any Interrogator transmissions.

An Interrogator will communicate with a Tag by first sending a wakeup signal. The Tag will detect the wakeup transmission with an acknowledgment and the Interrogator will follow the wakeup transmission with a command to the Tag. The Tag then responds to the Interrogator command with a responding message. After communications is complete, the Interrogator sends a final command to the Tag that places the Tag back into the sleep state. The Interrogator then has the information to determine the location and contents or identity of the interrogated container.

2.0 Test Setup

The Test Setup for measurement of the Interrogator spectrum consisted of an Interrogator transmitting continuously and a spectrum analyzer for a receiver. The interrogator data rate is the normal 10 kHz rate used by the system. The Interrogator Spectrum was chosen for measurement instead of the Tag since it has the higher FSK modulation deviation, (100 kHz deviation versus the 70 kHz deviation used by the Tags). The Receiver used to observe the spectrum was a HP 8591A Spectrum Analyzer using a quarter wave dipole antenna for reception.

3.0 Spectrum Figures

3.1 Figure 1, the – 3 dB point high side.

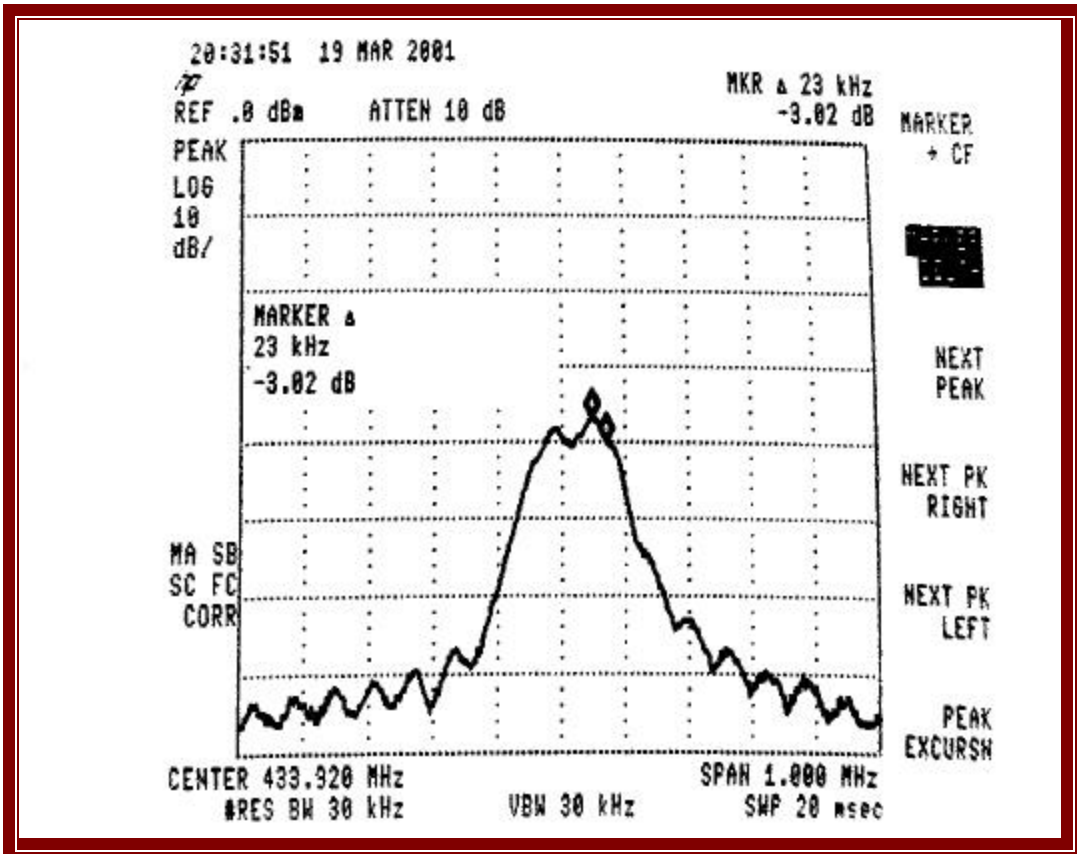
Figure 1 is a measurement of the point 3 dB down and to the right of the transmitter modulation spectrum peak marker. The Figure indicates that the -3 dB point is 23 kHz from the peak marker.

3.2 Figure 2, the –3 dB point low side.

Figure 2 is a measurement of the point 3 dB down and to the left of the transmitter modulation spectrum peak marker. The Figure indicates that the -3 dB point is 75 kHz from the peak marker.

4.0 FSK Modulation Spectrum Bandwidth of 98 kHz.

Using the upper -3 dB frequency data point (75 kHz) and the lower -3 dB frequency data point (23 kHz) the –3 dB bandwidth measured is 98 kHz (75 kHz + 23 kHz = 98 kHz).



II. Figure 1 - 3 dB to the right of Peak of SaviReader Transmitter Spectrum

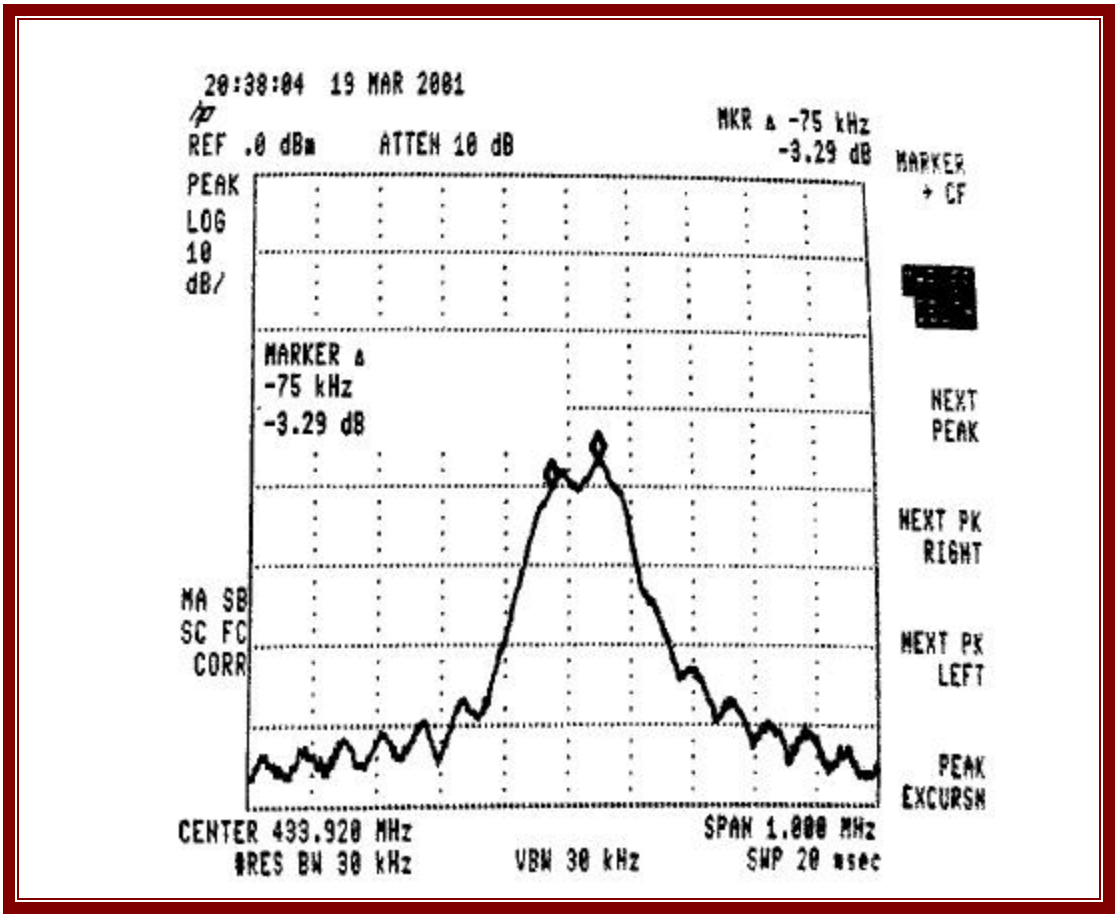


Figure 2 -3 dB to the left of Peak of SaviReader Transmitter Spectrum